

Water Quality Research Project

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Part I – Goals, Objectives, Learning Targets:

1. Name of Course – Science 10 - Water Quality Research

Water is the liquid of life and yet it is too often taken for granted. From space, our planet appears to have more water than land but less than 1% of our water is actually usable and this precious amount is under threat. We need to understand the value of water so that we can treat it with the reverence it deserves.

Each grade ten student will be required from three First Nations communities to work with their Science teacher in each of their respective schools. The three communities in Saskatchewan are Hatchet Lake, Sturgeon Lake, and Red Earth. The research project is interested in assessing the quality of surface water in each community. This means that each of the participant communities relies on getting their water from a river or lake, which is pumped into a treatment plant and treated if necessary. Recently, a number of communities have reported high levels of contaminants that they believe is linked to various health issues. In fact, as of Feb. 2008, 93 First Nations communities in Canada were under boil water advisories. Even though most water is treated with chlorine and monitored for water quality, some communities still haul with water trucks from house to house. This exposes each household to further contamination. In addition, with higher parasitic counts cited on fish caught in local streams, rivers and lakes where the communities draw their water, questions are being raised about whether this poses further risk to drinking water as well.

The purpose of this wikispace project is to provide a resource for the three site teachers to involve their students in a study of their local watersheds and in an exploration of the personal, social, and economic value of water. This project will be an end of semester project that incorporates a number of the curriculum units into hands on experience for students. A wikispace has been developed to host a number of different resources and project activities for students to use and develop during the project. In addition, the students will be coordinated by Credenda Virtual High School and host regular online live sessions for students to share their findings and data with each other. A short in-service will be planned with the three cooperating teachers to make sure they feel comfortable with the material and the lesson plans.

We expect that given the opportunity to learn about the value of water from a variety of perspectives, students will decide to act in a more responsible manner with respect to protecting and conserving the watersheds that are the sources of water for their communities, not out of fear, but because they have developed a new appreciation for the importance of water stewardship based on knowledge. We would like them to take away an understanding of the reciprocal man/water relationship: if we maintain it, it will sustain us.

2. Grade Level: Ten

3. Unit of Instruction

This project focuses on working with the existing curriculum and integrating the units of study with the hands on practical application of this knowledge into real life research that will develop into an action plan for students and community. A number of elements are defined in each unit

of study that extend the knowledge acquisition, such as use GPS, mapping, water treatment process, testing water samples, interviewing, digital video recording, and more.

The following four units from the Grade Ten Saskatchewan Curriculum are:

- Earth and Space Science: Weather Dynamics
- Physical Science: Chemical Reactions
- Physical Science: Motion in Our World
- Life Science: Sustainability of Ecosystems

Each of these areas will be covered in the final project.

4. Project Essential/Guiding Question(s):

What is the value of water? This is the driving question from which the project will develop the various strands of research.

5. Estimated duration of project:

The project should take approximately four to six weeks to complete at the end of the fourth and final unit of instruction in the Science 10 curriculum.

6. Resources/Technology:

The following resources will be used to ensure the experience is meaningful and transfer to real-life application. Please see attached **Appendix A** for list of web resources for this project.

Each school will receive a Garmin GPS unit and mapping software. Separate trainings will be provided for each school by Prince Albert Grand Council Engineering on how to use the GPS and mapping software.

In addition, Hach kits will be provided by Health Canada to each school to be able to test basic chemicals, contaminants, metals, and other substances. Included in these kits are DR4000 Spectrophotometer, DR2010 Spectrophotometer, DR 800 Colormeter, water bottles, chemicals, and more. Information can be found at:

http://www.hach.com/hc/browse.product.documentation/FILCAT_PROC_WAH_MAIN/NewLinkLabel=Hach+Water+Analysis+Handbook+Procedures,+5th+Edition/SESSIONID|AXpRMU1UazBNamMwTnprekptZDFaWE4wUms5WIZWVXhNZz09Qg==|

Please download manual for operating instruments at:

<http://www.hach.com/fmmimghach?/CODE%3A4902888529|1>

√	Assistive tools: GPS – Garmin units, mapping software, etc.	√	Communication tools: blogs, wikis, pod casts, e-mail, web page, Elluminate Live, etc.
	Interactive technology: Interactive whiteboards, digital projectors, etc.	√	Research online: encyclopedias, EBSCO, Water Quality Wikispace, etc.
√	Productivity tools: web sites, PowerPoint, spreadsheets, word process, graphic organizers, concept mapping, etc.	√	Digital Imagery: digital camera, clip art, movie clips, etc
√	Content Resource: web sites - Google Earth, content software resources, blogs, etc.	√	Equipment: TV, tape recorder, CD/DVD player, videos, MP3 Players, video cameras, Hach kits, etc.
	Other:		

Explanation of use of technology:

Since in Saskatchewan, the focus is resource-based learning, there are no textbooks for Science 10. Instead, a multiple of resources are used to provide students a wide cross-section of resources. Students will use significant technologies to complete this project. It will be essential that students are provided instruction in various areas to ensure success in this project. It is preferable that teachers provide mini lessons on different elements as the project goes ahead.

7. Outcomes (Goals and Objectives):

Through the completion of a water quality research project, students will acquire basic hands-on research methods in the collection of local surface water samples, testing of the samples, and compiling the data for a larger national research grant proposal. By examining the costs (personal, social, and environmental) of using bottled instead of tap water, they will better understand the benefits of proactive maintenance of local water treatment facilities and strategies for the prevention of pollution to existing water sources.

The following areas will be examined:

- Water resources in their communities (drinking, household needs, recreation).
- Environmental issues (on-going or considered) that may affect identified water resources.
- Impacts to the community where perceived changes to water quality have occurred over time.

Students will be asked to consider the value of water from a number of perspectives:

- Where does our community's water come from?
- How does the quality of our water compare to 'acceptable' standards?
- Is the water supply plentiful?
- Is water a resource? Should it be sold to the highest bidder?
- What actions can individuals and communities take to ensure a plentiful supply of good quality water?

Learning Outcomes	
The students will know:	The students will be able to do:
Life Science: Sustainability of Ecosystems <ul style="list-style-type: none"> SE1 Explore cultural perspectives on sustainability SE2 Examine biodiversity within local ecosystems SE3 Analyze population dynamics within an ecosystem SE4 Identify cycles, change, and stability in ecosystems SE5 Investigate human impact on ecosystems 	Project Application: <ul style="list-style-type: none"> Interviewing community elders about water issues in the past Interviewing water treatment personnel about source water Collecting data about recreational use of source water Software application and production techniques for recording interviews with digital video for development of DVD
Physical Science: Motion in Our World <ul style="list-style-type: none"> MW1 Explore motion-related technologies MW2 Observe and describe the motion of everyday objects MW3 Investigate the relationship among distance, time, and speed for objects that undergo uniform motion MW4 Investigate the relationship among speed, time, and acceleration for objects that undergo uniformly accelerated motion MW5 Analyze graphically and mathematically the relationship among distance, speed, time and acceleration for objects that undergo simple linear motion or uniformly accelerated motion 	Project Application: <ul style="list-style-type: none"> Training for use of GPS equipment Students going to various locations to collect water samples at source surface water and mapping coordinates where samples collected Using mapping software to upload GPS coordinates Learning and applying information with Google Earth software to share information with cooperating communities
Physical Science: Chemical Reactions <ul style="list-style-type: none"> CR1 Observe common chemical reactions in your world CR2 Represent chemical reactions symbolically using models, word equations, and balanced chemical equations CR3 Identify characteristics of chemical reactions involving organic compounds CR4 Identify factors that affect the rates of chemical reactions CR5 Investigate chemical reactions involving acids and bases 	Project Application: <ul style="list-style-type: none"> Collecting water samples without contaminating samples in the process Identifying various elements in water samples Observing chemical reactions of chlorine, manganese, and other substances added to water Testing for ecoli, and other contaminants in water with equipment and Hach kits provided by Health Canada Recording data and sharing findings with other communities
Earth and Space Science: Weather Dynamics <ul style="list-style-type: none"> WD1 Explore the causes and impact of severe weather in Canada WD2 Analyze meteorological data WD3 Explain the principles of weather WD4 Forecast local weather conditions WD5 Identify consequences of global climate change 	Project Application: <ul style="list-style-type: none"> Develop community action plan to address water quality issues in communities Present plan to community leaders Construct PowerPoint presentation highlighting the various elements of the research and findings

8. Learning Targets:

Learning Targets:

Knowledge & Simple Understandings:

- Students will know the value of water
- Students will understand the history of the community as it relates to use of water, and environment
- Students will map source water with GPS and mapping software

Deep Understanding and Reasoning Learning Targets:

- Students will analyze the water samples for contaminants
- Students will develop an action plan for their community that address what may be done to eliminate risks to contaminating source water

Skill Learning Targets:

- Students will use the GPS equipment and mapping software to mark waypoints
- Students will transfer information into a Google Earth kmz file complete with images from sites marked and documenting relevant information
- Students will use the Hach kits to test water samples for metals, contaminants, high levels of chemical substances, etc.
- Students will develop interviewing skills that respect the cultural values and protocols for collecting information from elders and community members

Product Learning Targets:

- Students will produce a DVD from interviews with a Flipz video camera, and using Moviemaker to edit the content
- Students will develop a PowerPoint presentation to be used in a community meeting hosted by the students to raise awareness about water quality issues in the community

Affective Learning Targets:

- Students will engage in the process of caring about water quality in the community
- Students will show respect to the elders and community members they interview
- Students will value the water
- Students will cooperate with other students in completing the project

Part II – Create an Assessment Plan

The following measurement instruments and scoring guides will be used during the project.

	Pre-Assessment aligned with learning targets		Running Record
	Anecdotal Records	√	Class discussions
√	Presentation	√	Conferences and interviews
	Students using feedback to set goals	√	Rubrics and/or Scoring guides
√	Journals/Learning log	√	Self-Assessment/Reflection
	Portfolios	√	Performance tasks
√	Projects	√	Selected and/or constructed responses
	Students revise assessment answers		Open Response
	On-Demand		Oral Examination
	Matching Items	√	True/False and other Binary-Choice
√	Questioning	√	Multiple Choice/Selected Response
	Writing Portfolio Tasks		Essay
√	Performance Events	√	Peer Evaluations
Other:			

Learning Targets Matched to Effective Assessment Methods:	
Knowledge & Simple Understandings:	<ul style="list-style-type: none"> - Class Discussions - Self Assessment / Reflection - Questioning - True/False Quizzes
Deep Understanding and Reasoning Learning Targets:	<ul style="list-style-type: none"> - Multiple Choice - Selected Responses - Conferences and Interviews
Skill Learning Targets:	<ul style="list-style-type: none"> - Performance Tasks - Conference and Interviews - Rubrics - Projects
Product Learning Targets:	<ul style="list-style-type: none"> - Projects - Conference and Interviews - Peer Evaluations - Performance Events - Presentation
Affective Learning Targets:	<ul style="list-style-type: none"> - Self Assessment / Reflection - Journals

Part III - Develop Assessment

Scoring Criteria: Included are samples of rubrics covering five learning targets

Interview : Community Elders, Leaders, and Water Treatment Plant Operators

Student Name: _____

CATEGORY	4	3	2	1
Preparation	Before the interview, the student prepared several in-depth AND factual questions to ask.	Before the interview, the student prepared a couple of in-depth questions and several factual questions to ask.	Before the interview, the student prepared several factual questions to ask.	The student did not prepare any questions before the interview.
Setting Up the Interview	The student introduced himself, explained why he wanted to interview the person, and asked permission to set up a time for an interview.	The student introduced himself and asked permission to set up a time for the interview, but needed a reminder to explain why he wanted to do the interview.	The student asked permission to set up a time for the interview, but needed reminders to introduce himself and to tell why he wanted to interview the person.	The student needed assistance in all aspects of setting up the interview.
Follow-up Questions	The student listened carefully to the person being interviewed and asked several relevant follow-up questions based on what the person said.	The student listened carefully to the person being interviewed and asked a couple of relevant follow-up questions based on what the person said.	The student asked a couple of follow-up questions based on what s/he thought the person said.	The student did not ask any follow-up questions based on what the person said.
Videography	Video does not rock/shake and the focus is excellent throughout.	Video does not rock/shake and the focus is adequate throughout.	Video has a little rocking or shaking, but the focus is excellent throughout.	The video rocks/shakes often OR the focus is not adequate.
Formatting & Editing	The student edited and organized the transcript in a way that made the information clear and interesting.	The student edited and organized the transcript in a way that made the information clear.	The student edited and organized the transcript but the information was not as clear or as interesting as it could have been.	The student did NOT edit or organize the transcript.

Digital Storytelling : Video Production of Interview

Student Name: _____

CATEGORY	4	3	2	1
Point of View - Awareness of Audience	Strong awareness of audience in the design. Students can clearly explain why they felt the vocabulary, audio and graphics chosen fit the target audience.	Some awareness of audience in the design. Students can partially explain why they felt the vocabulary, audio and graphics chosen fit the target audience.	Some awareness of audience in the design. Students find it difficult to explain how the vocabulary, audio and graphics chosen fit the target audience.	Limited awareness of the needs and interests of the target audience.
Voice - Consistency	Voice quality is clear and consistently audible throughout the presentation.	Voice quality is clear and consistently audible throughout the majority (85-95%) of the presentation.	Voice quality is clear and consistently audible through some (70-84%) of the presentation.	Voice quality needs more attention.
Soundtrack - Originality	All of the music is original.	Most (over half) of the music is original.	Some of the music is original.	None of the music is original.
Images	Images create a distinct atmosphere or tone that matches different parts of the story. The images may communicate symbolism and/or metaphors.	Images create an atmosphere or tone that matches some parts of the story. The images may communicate symbolism and/or metaphors.	An attempt was made to use images to create an atmosphere/tone but it needed more work. Image choice is logical.	Little or no attempt to use images to create an appropriate atmosphere/tone.
Point of View - Purpose	Establishes a purpose early on and maintains a clear focus throughout.	Establishes a purpose early on and maintains focus for most of the presentation.	There are a few lapses in focus, but the purpose is fairly clear.	It is difficult to figure out the purpose of the presentation.

GPS: Use, Navigation, and Collection of Data from Source Water

Student Name: _____

CATEGORY	4	3	2	1
Use of GPS Unit	Can determine/read a latitude/longitude coordinate position, read speed and find a nominal direction from GPS receiver with no assistance	Can determine/read a latitude/longitude coordinate position, read speed and find a nominal direction from GPS receiver with some assistance from teacher	Can determine/read a latitude/longitude coordinate position from a GPS receiver with significant assistance from teacher	Can turn on unit and allow the acquisition of satellites and acquire a coordinate position
Navigation of GPS Unit	Able to create, record, and save GPS attribute information, in addition to retrieving GPS attribute information	Can save, record current location in GPS receiver as a waypoint, in addition to entering a previously recorded waypoint into a GPS receiver.	Use a navigation screen to navigate previously saved waypoint	Able to locate navigation screen, but uncertain where to find previously saved waypoint
Change settings and features	Convert latitude and longitude coordinates from decimal degrees and decimal minutes (DD:MM.MM) or degrees, minutes, and decimal seconds (DD:MM:SS.SS)	Convert latitude and longitude coordinates from decimal degrees (DD.DD)	Change the position format from latitude and longitude to Universal Transverse Mercator (UTM) or other coordinate system	Change the measurement units used for speed and time from U.S. to metric units
Collect data from GPS	Able to transfer collected data from handheld GPS receiver to computer and view collected GPS data on computer in tabular data format and convert data from format used by GPS receiver to format used by GIS software	Able to transfer collected data from handheld GPS receiver to computer and view collected GPS data on computer in tabular data format	Able to transfer collected data from handheld GPS receiver to computer	Unable to transfer collected data from handheld GPS receiver to computer

Validate data from GPS	Able to validate collected GPS data for possible spatial outliers and download and save GIS data from the Internet relevant to data collected with GPS receiver and understand differences between vector (points, lines, and polygons) and raster	Able to validate collected GPS data for possible spatial outliers (i.e., data collection errors) and locate Internet website to acquire GIS data and understand concepts of map scale and projections	Able to validate collected GPS data for possible spatial outliers (i.e., data collection errors) and locate Internet website to acquire GIS data	Unable to validate collected GPS data for possible spatial outliers (i.e., data collection errors)
Map layers	Can edit map layers based on feature attributes, create new map layers for a presentation and create new features in a map layer	Can view map layers in different projections, change symbology for map features, and label map features	Able to add map layers, zoom in and out of a map to change map scale.	Cannot add map layers, zoom in and out of a map to change map scale.

PowerPoint: Water Quality Action Plan Presentation at Community Meeting

Student Name: _____

CATEGORY	4	3	2	1
Background	Background does not detract from text or other graphics. Choice of background is consistent from card to card and is appropriate for the topic.	Background does not detract from text or other graphics. Choice of background is consistent from card to card.	Background does not detract from text or other graphics.	Background makes it difficult to see text or competes with other graphics on the page.
Originality	Presentation shows considerable originality and inventiveness. The content and ideas are presented in a unique and interesting way.	Presentation shows some originality and inventiveness. The content and ideas are presented in an interesting way.	Presentation shows an attempt at originality and inventiveness on 1-2 cards.	Presentation is a rehash of other people's ideas and/or graphics and shows very little attempt at original thought.
Content - Accuracy	All content throughout the presentation is accurate. There are no factual errors.	Most of the content is accurate but there is one piece of information that might be inaccurate.	The content is generally accurate, but one piece of information is clearly flawed or inaccurate.	Content is typically confusing or contains more than one factual error.
Sequencing of Information	Information is organized in a clear, logical way. It is easy to anticipate the type of material that might be on the next card.	Most information is organized in a clear, logical way. One card or item of information seems out of place.	Some information is logically sequenced. An occasional card or item of information seems out of place.	There is no clear plan for the organization of information.
Use of Graphics	All graphics are attractive (size and colors) and support the theme/content of the presentation.	A few graphics are not attractive but all support the theme/content of the presentation.	All graphics are attractive but a few do not seem to support the theme/content of the presentation.	Several graphics are unattractive AND detract from the content of the presentation.

Effectiveness	Project includes all material needed to gain a comfortable understanding of the topic. It is a highly effective study guide.	Project includes most material needed to gain a comfortable understanding of the material but is lacking one or two key elements. It is an adequate study guide.	Project is missing more than two key elements. It would make an incomplete study guide.	Project is lacking several key elements and has inaccuracies that make it a poor study guide.
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ePortfolio: Using Wikispace for Water Quality Research Project

Student Name: _____

CATEGORY	4	3	2	1
Selection of Written Communication	All written work is completed and uploaded.	Most written work is completed and uploaded.	Few written work is completed and uploaded.	No written work is completed and uploaded.
Purpose	The site has a well-stated clear purpose and theme that is carried out throughout the site.	The site has a clearly stated purpose and theme, but may have one or two elements that do not seem to be related to it.	The purpose and theme of the site is somewhat muddy or vague.	The site lacks a purpose and theme.
Use of Multimedia	All multimedia submissions are of superior quality and related to theme.	Some multimedia submissions may be of superior quality and related to theme, but some are also of lesser quality.	All multimedia submissions are below superior quality and not always related to theme, but show some effort.	All multimedia submissions are of poor quality and not related to theme.
Ease of Navigation	All navigation tabs and links are appropriate and working properly.	Most navigation tabs and links are appropriate and working properly.	Some navigation tabs and links are appropriate and working properly.	No navigation tabs or links are appropriate or working properly.
Layout and Text Elements	The ePortfolio is organized and arranged in a manner that is easy to read and follow, and is pleasing to the eye.	The ePortfolio is for the most part organized and arranged in an effective manner, with just a few minor distractions.	The ePortfolio has more than a few minor distractions, and could use some reorganization.	The ePortfolio is not well organized or arranged and has many distractions.
Links (content)	All links point to high quality, up-to-date, credible sites.	¾ of the links point to high quality, up-to-date, credible sites.	½ of the links point to high quality, up-to-date, credible sites.	Less than ½ of the links point to high quality, up-to-date, credible sites.

Part IV – Student Monitoring, Self Modifying, and Self Managing

Recently, I took the Habits of Mind (Costa & Kallick, 2000) and combined them with the Virtues. I was pleased with the results, and decided to make a self-assessment tool out of these 16 statements which I believe are powerful personal statements for any person to believe about themselves. Please have students check column which they believe applies to them.

Upon completion, it is important that the teacher sit down with the student and review their answers and develop an action plan that will address areas for development and improvement. As much as the students need to complete this self-assessment, it needs to be followed up with the teacher assisting the student and asking questions that will help the student know what they need to do to improve.

Habits of the Mind	Description	Always	Sometimes	Rarely
I Practice Perseverance	I don't give up easily. I analyze a problem, develop a system, structure, or strategy to attack a problem.			
I Live Intentionally with Idealism	I think before I act. I intentionally form a vision of a product, plan of action, goal or a destination before they begin.			
I Listen with Understanding	I recognize listening is the beginning of understanding..... I empathize with, and understand others point of view.			
I Think with Flexibility	Flexible people are the ones with the most control. I have the capacity to change my mind as I receive additional data.			
I am Committed to Thinking About our Thinking (Metacognition)	Metacognition is our ability to know what we know and what we don't know. I plan a strategy before embarking on a course of action.			
I Strive for Excellence	I have a desire for craftsmanship, mastery, flawlessness and economy of energy to produce exceptional results.			
I Question and Pose Problems with Assertiveness	I am an effective problem solver who knows how to ask questions to fill in the gaps between what I know and what I don't know.			
I Apply Past Knowledge with Wisdom	I understand intelligent human beings learn from experience.			
I Think and Communicate with Truthfulness	I support my statements with explanations, comparisons, quantification, and evidence.			
I Gather Data with Tact and Integrity	I gather all information through the sensory pathways: gustatory, olfactory, tactile, kinesthetic, auditory, visual, most linguistic, cultural.			

I Imagine Solutions with Creativity	I creatively try to conceive problem solutions differently, examining alternative possibilities from many angles.			
I Respond with Wonderment and Awe	I have a passion for what I do. I have an I "CAN" attitude, but also an "I ENJOY" feeling.			
I Take Risks with Responsibility	I am a risk taker who is compelled to go places or be in situations where I do not know what the outcome will be.			
I Engage in Gentle Humor	I engage in the mystery of humor and have the ability to perceive situations from an original and often interesting vantage point.			
I Work in Unity and Cooperation	I am cooperative with others realizing that all of us together are more powerful, intellectually and/or physically, than any one individual.			
I Learn with Purposefulness and Enthusiasm	I am in a continuous learning mode.. People with this Habit of Mind are always striving for improvement, always growing, always learning, always modifying and improving themselves.			
	Total			

There may be other tools a teacher might wish to use for self-monitoring, but what is important to keep in mind, is that this tool is not used as a punitive instrument that makes a student feel worse about his or herself. In the end, I want for students to have been encouraged about how they can better their lives so they can be more successful in life experiences.

I would really disapprove of a teacher taking an instrument such as this and making a student feel small and belittled because a teacher used the results to make a point to scold a student and be negative about the student.

A simple interview is a means to check informally how the student is doing and to dialogue about what they are learning, or the challenges they are facing in the project.

The other piece around this self-assessment tool, is that I would not want to see teachers using this instrument to score students or give a grade. Unless it is spelled out clearly as one of the outcomes, around the affective learning targets, students should not be graded for this exercise. The only thing it can assist the teacher with is giving an idea whether the student has reached the specified outcomes listed above, which will be graded.

Part V – Peer Assessment

Group Name: _____

The following is a list of statements to be answered and each of your group members for the project. This peer rating can be used the DVD production, the GPS waypoint activities, the water sampling, or the PowerPoint presentation. Think carefully about assigning rating values for each of the statements. Please print name of students in the top line after each colon (ex. T1: name).

1-Strongly Agree

2-Agree

3-Neutral

4-Disagree

5-Strongly Disagree

	Self:	T1:	T2:	T3:
Was dependable in attending group meetings.				
Willingly accepted assigned tasks.				
Contributed positively to group discussions.				
Completed work on time or made alternative arrangements.				
Helped others with their work when needed.				
Did work accurately and completely.				
Contributed a fair share to project.				
Worked well with other group members.				
Overall was a valuable member of the team				
Total				

It is really important that students be fair in their assessment of one another. That is why, I believe it is fair to show what they would give themselves for a mark along with the others in their group.

References

Costa, A. and Kallick, B. (2000) *Habits of Mind. A Developmental Series*. Alexandria, VA: Association for Supervision and Curriculum Development

Science 10, Curriculum Guide (2005) SK Education <http://www.sasklearning.gov.sk.ca/docs/xsci/>

Appendix A

Resources:

Surface Water Quality Objectives - SK

<http://www.publications.gov.sk.ca/details.cfm?p=24517>

Canadian Water Quality Guidelines

<http://www.ec.gc.ca/ceqg-rcqe/English/ceqg/water/default.cfm>

WATER RESOURCES CATALOGUE

http://www.google.ca/url?sa=t&source=web&ct=res&cd=38&url=http%3A%2F%2Fwww.gca.ca%2Findexcms%2Fdownloads%2FWATER_2008.pdf&ei=OcXKSYSYJIHwsAOmmPmqCg&usq=AFQjCNF20LUkdTxekzySmkDBwZih2Q6Nyw&sig2=ZDLSGqL9lYWNYHWmGXDWK_A

Schools Involved in the SHS Project — Sierra Club of BC

http://www.sierraclub.bc.ca/education/ed_schools/middle-secondary/schools-involved-in-the-shs-project

Water Testing and Environmental Science Projects

<http://www.water-research.net/schoolprojects/schoolprojects.htm>

The Groundwater Foundation

<http://www.groundwater.org/>

High School Environmental Center - US EPA

<http://www.epa.gov/highschool/>

US EPA Student Center - Water

<http://www.epa.gov/region5/students/water.htm>

Water Pollution

<http://www.ehponline.org/topic/waterpol.html>

EPA Student Center | US EPA

<http://www.epa.gov/students>

Get Wise! - 1.888.GETWISE

<http://www.getwise.org>

USGS Water Science for Schools: All about water!

<http://ga.water.usgs.gov/edu/index.html>

MBGnet

<http://www.mbgnet.net>

Mother Earth Water Walk

<http://motherearthwaterwalk.com/index.html>

Clean Watersheds

<http://cleanwatersheds.wikispaces.com>

Community Water Quality Research - A study examining water quality on First Nation communities

<http://waterquality.ning.com>

YouTube - Watersheds 101

<http://www.youtube.com/watch?v=ofTdglXriug&feature=related>

YouTube - The Bushell Family of Walkerton

<http://www.youtube.com/watch?v=vVUrTdwmVvI>

YouTube - Watercan - Clean Water for All

<http://www.youtube.com/watch?v=0hUF-bK13kU>

Water for Life

<http://www.un.org/waterforlifedecade/background.html>

Facts About Dihydrogen Monoxide

<http://www.dhmo.org/facts.html>

"Getting to the Root of Water Quality" on InnovationCanada.ca

<http://www.innovationcanada.ca/en/articles/getting-to-the-root-of-water-quality>

Water Quality Project › Dashboard — WordPress

<http://hilltopper.edublogs.org/wp-admin>

Clean Nova Scotia

<http://www.clean.ns.ca>

Protocol for Safe Drinking Water in First Nations Communities

<http://www.ainc-inac.gc.ca/enr/wtr/pubs/sdw/sdw-eng.asp>

Welcome to Safewater.org!

<http://www.safewater.org>